IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

forming an insulating layer on a semiconductor substrate;

forming a contact hole on the insulating layer;

depositing a WSiN layer ~~barrier metal~~ in the contact hole and on the insulating layer using an atomic layer deposition process, wherein a single atomic layer of the WSiN layer is deposited by a continuous cycle comprising:

injecting SiH_4 gas,

purging any remaining SiH_4 gas using an inert gas,

injecting WF_6 gas,

purging the remaining WF_6 gas using an inert gas,

injecting NH_3 gas, and

purging any remaining NH_3 gas using inert gas;

depositing a tungsten layer on the barrier metal using the atomic layer deposition process; and

filling the contact hole with a tungsten.

2. (Currently Amended) The method of claim 1, wherein the atomic layer deposition process for the WSiN layer ~~barrier metal~~ and the tungsten layer is performed in a single reaction chamber.

3. (Cancelled).

4. (Original) The method of claim 1, wherein the tungsten is deposited by chemical vapor deposition.

5. (Cancelled).

6. (Currently Amended) The method of claim 1 ~~3~~, wherein the WSiN layer has a thickness of 20 to 100Å.

7. (Currently Amended) The method of claim 1 ~~5~~, wherein the SiH_4 gas is injected at a flow rate of 50~100 SCCM.

8. (Currently Amended) The method of claim 1 ~~5~~, wherein the WF_6 gas is injected at a flow rate of 10~50 SCCM.

9. (Currently Amended) The method of claim 1 ~~5~~, wherein the NH_3 gas is injected at a flow rate of 30~80 SCCM.

10. (Original) The method of claim 7, wherein the SiH_4 gas and the WF_6 gas are injected in a ratio of 1:5.

11. (Original) The method of claim 8, wherein the SiH_4 gas and the WF_6 gas are injected in a ratio of 1:5.

12. (Original) The method of claim 2, wherein the tungsten layer is deposited at a temperature of 200 to 600°C.

13. (Original) The method of claim 1, wherein a single atomic layer of the tungsten layer is deposited by a continuous cycle comprising:

injecting SiH_4 gas;

purging any remaining SiH_4 gas using an inert gas;

injecting WF_6 gas; and

purging any remaining WF_6 gas using an inert gas.

14. (Original) The method of claim 13, wherein the tungsten layer is deposited to a thickness of 20 to 100Å.

15. (Original) The method of claim 5, wherein the inert gas is any one of Ar gas and a mixture of Ar gas and H_2 gas.

16. (Original) The method of claim 13, wherein the inert gas is any one of Ar gas and a mixture of Ar gas and H_2 gas.

17. (New) A semiconductor device comprising:

a substrate;

an insulating layer on the substrate;

a contact hole on the insulating layer;

a barrier metal layer in the contact hole and on the insulating layer;

a first metal layer on side of the barrier metal layer; and

a second metal layer on the first metal layer,

wherein the barrier metal layer and the first metal layer are formed by an atomic layer deposition process.

18. (New) The semiconductor device according to claim 17, wherein the barrier metal layer is WSiN layer.

19. (New) The semiconductor device according to claim 18, wherein the WSiN layer is formed by using more than three gases.

20. (New) The semiconductor device according to claim 19, wherein the three gases are Si-contained gas, W-contained gas, and N-contained gas.